after the heading, insert at the left margin:

--1. Field of the Invention--;

before line 7, insert at the left margin;

--2. Description of Related Art--;

Page 2, before line 21, insert the following centered heading:

--SUMMARY OF THE INVENTION--;

At page 3, please replace the last paragraph to read as follows:

-- The physical process of trapping and releasing of electric charges in the x-ray image sensor matrix is represented by a mathematical model containing a small number of model parameters. This mathematical model has been disclosed in more detail in the article Measurements and simulation of the dynamic performance of an ▒-Si:H image sensors = in the Journal of Non-crystalline solids Vol.164-166(1993)781-784. Values for the model parameters are derived from the calibration image signal, in particular by performing a best fit to the mathematical model. On the basis of the values of the model parameters there are computed correction values which represent delayed electric charges for separate x-ray exposure circumstances and for arbitrary periods of time lapsed since the latest x-ray exposure. This computation of the correction values can be performed separately from the x-ray examination apparatus, but the arithmetic unit of the x-

ray examination apparatus itself can also be used. Sets of correction values are stored which relate to various x-ray exposure circumstances. In particular, sets of correction values are stored for separate values of the number of preceding x-ray pulses, the x-ray pulse rate, respective intensities of the preceding x-ray pulses. Each set includes correction values for several values of the time lapsed since the latest x-ray pulse.

Please amend the last paragraph of page 4 to read as follows.

The arithmetic unit computes the signal levels of the corrected image signal from the signal levels of the initial image signal and the correction values. Only relatively simple computations are required such as subtracting the correction values from the signal levels of the initial image signal. Because the computations involving the mathematical model of the trapping and release of charges need only to be carried-out once for the calibration image signal, for correcting the initial image signal only simple calculations are required. The simplicity of the required calculations is achieved at the cost of storing a number of correction values which is substantially larger than the small number of model parameters.

Please amend the second paragraph on page 8 to read as follows.

Interpolation is a simple, rapid and accurate method to derive a correction value from stored correction values. Thus, only correction values for a relatively small number of values for the model parameters need to be stored. Correction values relating to values of model parameters for which no correction values are stored are interpolated from correction values relating to values of model parameters which are close to the values at issue. Further, correction values relating to an arbitrary time lapsed since the latest x-ray exposure can be calculated from stored correction values for particular values for said lapsed time. Preferably a bisection method is employed for rapidly finding correction values which are employed for the interpolation.

Page 8, before line 22, insert the following centered heading:

--BRIEF DESCRIPTION OF THE DRAWING--;

Page 8, before line 25, insert the following centered heading:

--DESCRIPTION OF THE PREFERRED EMBODIMENT--;

Page 11, please replace the first full paragraph to read as follows:

Further, the control unit 6 is arranged to switch the x-ray image sensor matrix 1 with the correction unit between an imaging mode and a calibration mode. In the calibration mode a predetermined series of calibration x-ray exposures is